

## Objective 11

### Demonstrates positive approaches to learning

When children have a positive approach to learning, they are likely to want to learn more. There are five dimensions to this objective: attention and engagement, persistence, problem solving, curiosity and motivation, and flexibility and inventiveness.

#### Attention, Engagement, and Persistence

As children mature, they demonstrate an increasing capacity to concentrate, to persist, and therefore, to become deeply involved in what they are doing, despite distractions and interruptions. The ability to resist distractions, remain positively engaged, and persist at learning tasks are related positively to children's academic achievement, cognitive development, and peer interactions (Blair, 2003; Deater-Deckard, Petrill, Thompson, & DeThrone, 2005; Duncan et al., 2007; Fantuzzo, Perry, & McDermott, 2004; Howse, Lange, Farran, & Boyles, 2003; Hyson, 2008; Jablon & Wilkinson, 2006; Ladd, Birch, & Buhs, 1999; Normandeau & Guay, 1998).

There are variations among children's levels of attention, engagement, and persistence. Bilingual children may sometimes be more likely to attend to relevant details during attention-demanding tasks than their monolingual peers because they have had experience attending to one language while ignoring the other language (Bialystok & Martin, 2004). In general, children show greater persistence on tasks that are challenging for them (tasks that are not too easy or too difficult). They are likely to be more attentive, interested, and engaged when they make choices about their learning (Brophy, 2004; Kohn, 1993).

Some children with particular disabilities may be less likely to become engaged in activities or may show engagement in ways that are different from those of typically developing children. Children with attention deficit disorders (ADD, ADHD) may find it difficult to persist with classroom performance tasks. Children with autism spectrum disorders may repeat behaviors, continuing to do the same things again and again. They may do this even if their strategies are not successful. Children living in poverty may find it hard to regulate their attention and persist with challenging tasks if they are hungry, sick, or sleepy (Howse, Lange, Farran, & Boyles, 2003; Hyson, 2008).

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Positive evaluative feedback from adults helps children persist with difficult tasks (Berk, 2003; Burhans & Dweck, 1995; Kelly, Brownell, & Campbell, 2000). Children who are distracted easily may need to work with only a few materials and choices at one time. Sometimes a task must be presented in smaller steps so that the child can understand what to do (Gargiulo & Kilgo, 2007; Lewis, 2003).

### Problem Solving

Children solve problems by using available information, resources, and materials to overcome obstacles and achieve a goal. An infant cries when hungry. A toddler backs down steps consistently once he has been taught to go down backwards. A preschool child tries several strategies, modifying them as he goes along. A kindergartner works with peers trying various suggestions for attaching new pieces to a sculpture. In order to use relevant information to solve problems, children need to have organized what they know and be able to retrieve it. Very young children independently discover many ways to solve problems as they explore their bodies and interact with materials and people.

### Curiosity and Motivation

Young children want to know more about themselves and the world around them. An infant explores a block by putting it in his mouth and banging it on the ground. A toddler turns the water handle repeatedly to make the water start and stop. A 2-year-old repeatedly asks, "Why?" A preschooler who is interested in airplanes asks an adult to read a nonfiction book about how jets are made. These children are all demonstrating their curiosity and motivation to learn.

Curiosity promotes cognitive, social–emotional, and physical development throughout life by stimulating exploratory behaviors (Reio, Petrosko, Wiswell, & Thongsukmag, 2006). By responding to children's questions and providing safe environments that encourage active exploration, adults foster children's curiosity and motivation to learn. When children are motivated, they have a desire to continue with challenging tasks. Most children find new learning self-motivating (Hyson, 2008). Giving them rewards, e.g., food items, smiley faces, stickers, may lessen their curiosity and motivation to pursue the activities in the future (Arnone, 2003; Deci, Koestner, & Ryan, 2001; Elliot & Dweck, 2005; Katz & Chard, 1995; Stipek, 2002).

Children become increasingly selective in and adept at using problem-solving strategies. With experience, they become better at selecting and monitoring strategies and applying them in new situations (Berk, 2002, 2003; Bjorklund, 2005). Even after using a more efficient strategy, children often return to using a less effective strategy. This switching among strategies aids cognitive development. It allows children to reason about their choices, comparing more and less effective strategies.

Play gives children many opportunities to solve problems. In particular, sociodramatic play fosters children's problem-solving skills (Bergen, 2002; Fisher, 1992). Research shows that there are cultural and individual differences in the ways children approach problem-solving tasks. Some children interact with others to solve problems. Some children watch how others work with materials before beginning to use them. Other children solve problems independently, handling materials to figure out how they work. (Bergen, 2002; Berk, 2002, 2003; Trawick-Smith, 2006). One way is not necessarily better than another.

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All children do not show their curiosity or motivation to learn in the same ways, and teachers may interpret some children's behaviors as a lack of interest and motivation. Some children are taught not to ask questions of adults, and some watch how others use materials rather than explore them actively. Some children with particular cognitive disabilities demonstrate little apparent curiosity or motivation, and they need a great deal of adult support.

### Flexibility and Inventiveness

Cognitive flexibility is important for children's academic achievement (George & Greenfield, 2005; Hyson, 2008). Children who are flexible in their thinking consider alternative possibilities, find their own ways to resolve conflicts, and solve problems with tools and materials. When a 2-year-old tries a block and then uses a broom handle to reach a toy under a bookshelf and when a preschooler makes up new lyrics to a familiar song, they are approaching tasks with flexibility and inventiveness.

Flexible thinking is critical to children's development of sorting and categorization skills, understanding of concepts, problem-solving skills, reasoning skills, divergent thinking, and inventiveness. Children need unhurried time to explore topics in depth and to complete activities; space that inspires them to create; a varied collection of found, recycled, and purchased materials and props; an encouraging classroom atmosphere that supports risk-taking, acceptance of mistakes, and innovation; and opportunities to express their innovative thinking through creative products (Pope & Springate, 1995).

Flexibility requires children to shift focus from one topic to another, recognize relevant information, and change their strategies to match changing task demands. There are age differences in children's cognitive flexibility. Infants become increasingly able to shift attention from one object or person to another (Berk, 2002). A developmental spurt in children's cognitive flexibility occurs between 3–5 years of age (Deak, 2003; Smidts, Jacobs, & Anderson, 2004). Children who are bilingual may show enhanced cognitive flexibility as they switch between languages (Bialystok, McBride-Chang, & Luk, 2005). Some children with particular disabilities, such as autism spectrum disorders, may have difficulty with flexible thinking and may need specific activities to encourage flexibility of thought (Carruthers, 1996; Gould & Sullivan, 1999; Lewis, 2003).